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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,439	01/23/2004	Richard J. Gallagher	59474.21700	6832

30734 7590 01/30/2007  
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EXAMINER
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EREZO, DARWIN P

ART UNIT	PAPER NUMBER
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3731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/763,439	GALLAGHER ET AL.	
	Examiner	Art Unit	
	Darwin P. Erez	3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-10 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

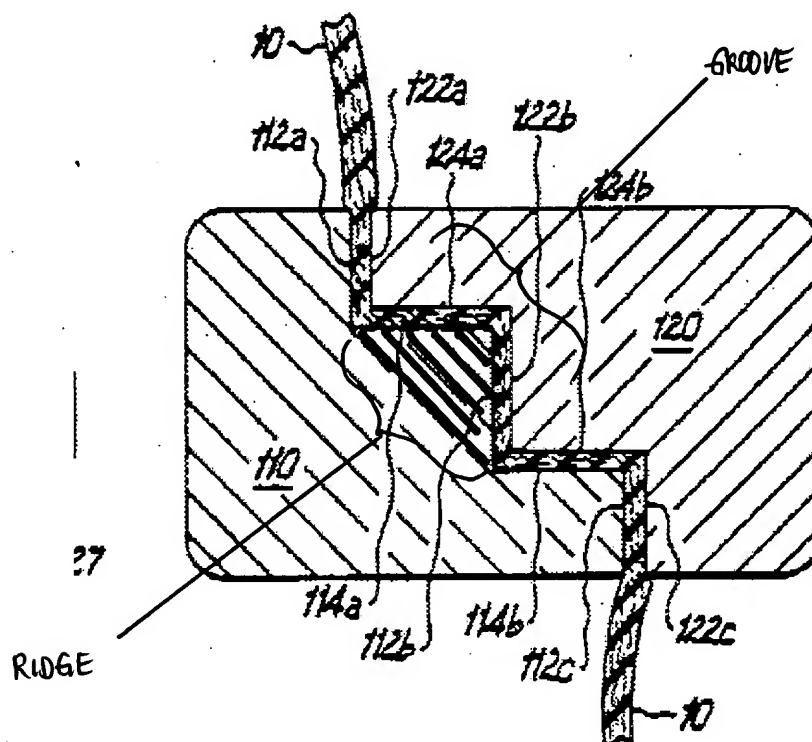
2. Claims 1-3, 5-10, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,062,846 to Oh et al. in view of US 5,330,442 to Green et al.

(claims 1-3) Oh teaches a surgical clip **10** comprising a first **12** and second **14** leg members joined by a resilient hinge **16**, each leg member having an inner and outer surface, the first leg member terminating at its distal end in a deflectable hook **22** member curved toward the second leg member, the second leg member terminating at its distal end in a locking portion complementary to the hook member, the hook member having a continuously curved outer surface (Fig. 1). Oh also teaches a means for securing the vessel when the clip is in the closed position (protrusions **1302,1304**). However, Oh is silent with regards to the clip comprising complementary parts of an interlock mechanism formed along a portion of the vessel clamping inner surface of each of the first and second leg members; and wherein the interlock mechanism includes a ridge portion and a groove portion that are aligned when the clip is in the closed position.

Figs. 1-7 of Green discloses a surgical clip comprising a first **110** and second arm **120**, and wherein complementary parts of an interlock mechanism

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(114a,124a,112b,122b) is formed along a portion of the vessel clamping inner surface of each of the first and second leg members, wherein the interlock mechanism includes a ridge portion and a groove portion (see attached figure below); wherein the ridge and groove portions are aligned in the closed position.



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the clip of Oh to include the interlock mechanism taught by Green because a ridge and groove configuration provides for a high degree of clamping force that would be optimal for vessel occlusion, clip retention, or suture retention.

(claim 5) Oh teaches the first leg member having a concave inner surface and a convex outer surface; and the second leg member having a convex inner surface and a concave outer surface (Fig. 1).

(claims 6 and 7) Oh teaches the clip having bosses (68,70,72,74) coupled to the first and second leg members for engagement with a clip applier, the bosses joined in pairs to opposite sides of the first leg member between the hinge and the hook portion, and to opposite sides of the second leg member at the distal end of the second leg member, the second leg member having sharp pointed members extending from the bosses (Fig. 6).

(claims 8 and 15) ) Oh teaches a surgical clip **10** comprising a first **12** and second **14** leg members joined by a resilient hinge **16**, each leg member having an inner and outer surface, the first leg member terminating at its distal end in a deflectable hook **22** member curved toward the second leg member, the second leg member terminating at its distal end in a locking portion complementary to the hook member, the hook member having a continuously curved outer surface (Fig. 1), and wherein the hook member deflects about the distal end of the second leg member to lock the clip in a closed position (transitioning from Fig. 1 to Fig. 3). Oh also teaches a means for securing the vessel when the clip is in the closed position (protrusions **1302,1304**).

Oh is silent with regards to the clip comprising complementary parts of an interlock mechanism formed along a portion of the vessel clamping inner surface of each of the first and second leg members; and wherein the interlock mechanism

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includes a ridge portion and a groove portion that are aligned when the clip is in the closed position.

However, Green discloses a second embodiment wherein a ridge portion **222** protrudes from a continuous portion **221** of the vessel clamping inner surface of the first arm and a groove portion **212** formed along and discontinuously recessed from a continuous portion of the vessel clamping inner surface of the second arm **210**; wherein the ridge and groove share a common plane of symmetry; and a centerline of the protruding ridge being aligned with a centerline of the groove.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the clip of Oh to include the interlock mechanism taught by Green because a ridge and groove configuration provides for a high degree of clamping force that would be optimal for vessel occlusion, clip retention, or suture retention.

(claims 9 and 17) Oh teaches the first leg member having a concave inner surface and a convex outer surface; and the second leg member having a convex inner surface and a concave outer surface (Fig. 1).

(10 and 18) Oh teaches the clip having bosses (68,70,72,74) coupled to the first and second leg members for engagement with a clip applier, the bosses joined in pairs to opposite sides of the first leg member between the hinge and the hook portion, and to opposite sides of the second leg member at the distal end of the second leg member, the second leg member having sharp pointed members extending from the bosses (Fig. 6).

(claim 16) As seen in Fig. 8 of Green, both the ridge and the groove extends along the inner surface of either the first and second legs from a proximal end to a distal end.

***Response to Arguments***

3. Applicant's arguments with respect to claims 1-3, 5-10 and 15-18 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darwin P. Erez whose telephone number is (571) 272-4695. The examiner can normally be reached on M-F (8:00-4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan T. Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Darwin P. Erez  
Examiner  
Art Unit 3731

de

  
**ANH TUAN T. NGUYEN**  
**SUPERVISORY PATENT EXAMINER**  
